

CLAIMS

1. A microcarrier onto the surface of which a cationic compound has been immobilised via a guanidine group.
2. A microcarrier according to claim 1, which is capable of attachment of cells via
5 charge-based interaction between the cationic compound and the cells.
3. A microcarrier according to claim 1 or 2, wherein the cationic compound provides a polycationic coating at the microcarrier surface.
4. A microcarrier according to any one of the preceding claims, wherein the cationic compound provides a weakly basic coating at the microcarrier surface.
- 10 5. A microcarrier according to any one of the preceding claims, wherein the cationic compound comprises one or two amino acids.
6. A microcarrier according to claim 5, wherein the cationic compound consists of arginine (Arg).
7. A microcarrier according to claim 5, wherein the cationic compound consists of a
15 dipeptide.
8. A microcarrier according to claim 7, wherein the dipeptide is arginine-glutamic acid (Arg-Glu) or arginine-aspartic acid (Arg-Asp).
9. A microcarrier according to any one of the preceding claims, wherein the cationic compound has been immobilised via a secondary amine to the microcarrier surface.
- 20 10. A microcarrier according to any one of the preceding claims, wherein the microcarrier is comprised of a cross-linked carbohydrate.
11. A cell culture support comprised of at least one microcarrier according to any one of the preceding claims.
12. A method of preparing a microcarrier, which method comprises to contact a com-
25 pound that comprises at least one guanidine group with an epoxide-activated substrate surface to immobilise the compound on the surface via the guanidine group.
13. A method according to claim 12, wherein the compound comprises one or two amino acids.
14. A method according to claim 13, wherein the compound consists of arginine (Arg).
- 30 15. A method according to claim 13, wherein the compound consists of a dipeptide.

16. A method according to claim 12, wherein the compound comprises one or more nucleotides.
17. A method according to any one of claims 12-16, wherein the substrate is a cross-linked carbohydrate.
- 5 18. A method according to any one of claims 12-17, wherein the microcarrier so prepared is as defined in any one of claims 1-10.
19. A method of attachment of cells to a surface, wherein a cationic compound comprising at least one guanidine group is used to attach cells to said surface.
20. A method according to claim 19, wherein the attachment is via charge-based interaction.
- 10 21. A method according to claim 19 or 20, wherein the cationic compound consists of arginine (Arg).
22. A method according to any one of claims 19-21, wherein the surface is the surface of a microcarrier, membrane, cloth, slide, chip, capillary or vessel.
- 15 23. A method according to any one of claims 19-22, wherein the cell attachment is provided for analytical or production purposes.
24. A method for localising cells for high throughput screening (HTS), which utilises a method as defined in claim 19-23.
25. A process of cell culture, wherein the cells are cultured at the surfaces of one or more microcarriers coated with a cationic compound in an environment that provides for viability, said cells being attached to the microcarriers via guanidine groups provided by the cationic coating.
- 20 26. A process according to claim 25, wherein the attachment of cells is based on charge-based interaction.
- 25 27. A process according to claim 26, wherein the cationic compound consists of arginine (Arg).
28. A process according to claim 26 or 27, which further comprises a step of harvesting viable cells from said microcarriers.
29. A process according to claim 26 or 27, which further comprises a step of using the cells for analytical and/or medical purposes.
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30. A process according to claim 25, which comprises a further step of using the cells to support culture of virus, bacteria, molds, fungi or algae.